LBNL Test Stand and Development System Operational

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A test stand and development system is operational at LBNL.

The major components are:

- File server suitable for development, with accounts for all technical personnel. Host machine is Sparc 5 with appropriate disk, network, and RAM hardware running Solaris 2.6. Full complement of Sun compilers and other development tools is provided.

- Desktop machines provided for all developers, as well as for operational (console) use. These are either Sparc 2 running SunOS 4.1.4 or Sparc 5 running Solaris 2.6.

- Installed on file server is VxWorks kernel and development environment, release 5.3.1 ("Tornado 1.0.1"). Kernels are configured and built for all existing SBCs on hand: MVME-147, MVME-167.

- Installed on file server is current and previous version of EPICS (releases 3.12.2 and 3.13).   EPICS is configured and built for existing SBCs on hand, with drivers for all VME I/O boards on hand as well as Allen-Bradley PLC.

- 5 VME crates are operational, with I/O boards distributed among them for development.   We have demonstrated, using software simulation, analog loopback with DACs and ADCs, and one bench-top power supply, a mock-up of the Ion Source/LEBT control system with real-time database, operator screens, alarm notification, and so forth. This has served as a training unit for developers.

- Work in progress includes setting up operational units in the prototyping area for existing front-end and in the control room for construction of deliverable front-end.

- Components are on hand to begin prototyping Allen-Bradley field busses and PLC (AB-IO, Flex-IO, and DeviceNet). This will be well integrated with existing components.

- Training of five staff was noted previously under "Formal EPICS training at LBNL provided." Two additional staff are undergoing both formal training and hands-on development.